

Date: Tue, 14 Dec 93 04:30:23 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #142
To: Ham-Ant

Ham-Ant Digest Tue, 14 Dec 93 Volume 93 : Issue 142

Today's Topics:

 Antenna advise Request - Mobile 25MHz to 1.3 GHz
 Apartment Antenna VHF/UHF
NON-DELIVERY of: Ham-Ant Digest V93 #140 (2 msgs)
 Painted Twinlead?
 Planar log-periodic antenna design

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 13 Dec 93 14:12:18 GMT
From: ftpbox!mothost!delphinium.rtsg.mot.com!mustang18!thweatt@uunet.uu.net
Subject: Antenna advise Request - Mobile 25MHz to 1.3 GHz
To: ham-ant@ucsd.edu

I am interested in getting a great mobile antenna for my scanner. The scanner covers a multitude of frequencys so I would like to get an antenna which would cover 25MHz to 1.3 GHz if possible. I want to make sure that at least I can receive most of these frequencies, maybe with the lower frequencys and upper frequencies not as high gain as the mid-frequencies. Does anyone know of any good antennas for this job, also what would be the bandwidth that I could really expect good performance on? If possible, I don't want this antenna to stick out like a sore thumb. It will be mounted on a small truck.

Thanks,
John

Date: Fri, 10 Dec 1993 21:41:36 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc!elroy.jpl.nasa.gov!swrinde!
cs.utexas.edu!gerald@cc.utexas.edu!portal.austin.ibm.com!awdprime.austin.ibm.com!
miltonm@network.ucsd.edu
Subject: Apartment Antenna VHF/UHF
To: ham-ant@ucsd.edu

I ended up using a 1x2 cut to the height of the sliding glass door to create a pseudo-door jamb. Applied insulation to cut down on infiltration, and made cut-outs as necessary to pass cables through. To lock the door I use a "bar" in the track on the inside to keep the door relatively close to the new jamb. The biggest air infiltration is between the "back" of the door and the fixed panel, I ended up getting some caulk-filler to stuff that gap (although I don't always worry about using it down here in Austin, TX).

milton

--

Milton Miller KB5TKF miltonm@austin.ibm.com
I never speak for IBM.

Date: 13 Dec 93 13:22:01 GMT
From: news-mail-gateway@ucsd.edu
Subject: NON-DELIVERY of: Ham-Ant Digest V93 #140
To: ham-ant@ucsd.edu

Delivery Failure Report

Your document:
Ham-Ant Digest V93 #140
could not be delivered to:
Thomas Morse
because:
Delivery time expired
Routing path:
CCGATE,CCGATE,CCGATE

Today's Topics:

Mag North Vs True North (2 msgs)
PI vs T Transmatch Circuits
short sw antennae?
T2FD antenna: any experiences? (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sat, 11 Dec 1993 16:04:30 GMT

From:

library.ucla.edu!europa.eng.gtefsd.com!emory!kd4nc!ke4zv!gary@network.ucsd.
edu

Subject: Mag North Vs True North

To: ham-ant@ucsd.edu

In article <gregCHrqwz.1A3@netcom.com> greg@netcom.com (Greg Bullough) writes:
>

>And of course the related, but equally puzzling question; if everyone
>comes home at night and turns on their television at prime-time, does
>the signal get weaker in fringe areas because of the number of receivers
>which are now consuming more microvolts of signal close in?

Well I can tell you what our transmitter engineer says. He says that
the antenna current soars when our local news comes on because everyone
out there is changing the channel to another station. Our SM overheard
him telling the MC operator "She's gonna blow! The current's backing up
and I can't handle it. You've gotta put on better programming." And the
SM thought he was serious. He called the CE at home and asked him what
we could do about the problem. You don't want to know what the CE said
to the transmitter engineer. :-)

Gary

--

Gary Coffman KE4ZV	I kill you,	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	You kill me,	uunet!rsiatl!ke4zv!gary
534 Shannon Way	We're the Manson Family	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-sorry Barney	

Date: Thu, 9 Dec 1993 20:29:00 GMT
From:
pravda.sdsc.edu!usc!howland.reston.ans.net!agate!headwall.Stanford.EDU!Csl
!paulf@network.ucsd.edu
Subject: Mag North Vs True North
To: ham-ant@ucsd.edu

greg@netcom.com (Greg Bullough) writes:

>And of course the related, but equally puzzling question; if everyone
>comes home at night and turns on their television at prime-time, does
>the signal get weaker in fringe areas because of the number of receivers
>which are now consuming more microvolts of signal close in?

My, what a helpful and informative posting. Yeah, right.

To answer the original question, no, the magnetic polar offset does not
"skew" signals; your aim should be based on true north. Now, there are
some negative effects on paths which cross the polar region, owing to the
concentration of flux lines; in particular, geomagnetic storms have a nasty
effect on polar paths.

--
-=Paul Flaherty, N9FZX | "Fighter pilots make movies. Bomber pilots make
->paulf@Stanford.EDU | history." -- Jake Grafton

Date: Fri, 10 Dec 1993 05:31:40 GMT
From: sytex!jim@uunet.uu.net
Subject: PI vs T Transmatch Circuits
To: ham-ant@ucsd.edu

Does anyone have any insight into building a switch into a
transmatch so that it is switchable from PI to T?

A friend of mine has a SWAN ST-1 antenna tuner that I am
interested to buy. Only problem is that with my ridiculous
indoor antenna situation (see below), I can't get it to
load of 15 meters using the T circuit it comes built with.

Works fine on 15 if I rewire it to a PI, but then it won't
handle 80 meters.

I'm considering putting a switch on the box and using it to switch between a PI and T configuration. Do THEY do that? Do I mess things up running the extra wires around in the box to make it possible?

My antenna is an indoor 40/20 meter dual center fed dipole. (how it snakes around the wall is a lovely site for apartment dwellers to see). Loads great with the Little MFG \$59 buck job. Since the MFJ isn't mine, but's on loan, I need to think about a replacement. Hence drolling over the SWAN, but I'll have to severly mod it.

Opinions anyone?

Jim -- AD4JE

jim@sytex.com (Jim Arnold)

Access <=> Internet BBS, a public access internet site

Sytex Communications, Arlington VA, 1-703-528-4380

Date: Wed, 8 Dec 1993 15:34:46 GMT

From:

olivea!sgigate.sgi.com!sgiblab!swrinde!cs.utexas.edu!howland.reston.ans.net

!newsserver.jvnc.net!netnews.upenn.edu!netnews.noc.drexel.edu!dunx1.ocs.drexel.edu

u!dunx1!st92ba44@decwrl.dec.com

Subject: short sw antennae?

To: ham-ant@ucsd.edu

hello there.

(excuse any ignorance, please). I was wondering how I'd go about shortening my antanna electronically. I've noticed that most of the short

antonio gatta

st92ba44@dunx1.ocs.drexel.edu

Date: Thu, 9 Dec 1993 21:29:33 GMT

From: walter!att-out!cbnewsj!k2ph@uunet.uu.net

Subject: T2FD antenna: any experiences?

To: ham-ant@ucsd.edu

Date: Thu, 9 Dec 1993 21:32:19 GMT

From:

pravda.sdsc.edu!usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!csn!col.h
p.com!srngenprp!alanb@network.ucsd.edu

Subject: T2FD antenna: any experiences?

To: ham-ant@ucsd.edu

Roger Traylor (rlt@ssd.intel.com) wrote:

: In the book: PRACTICAL WIRE ANTENNAS
: EFFECTIVE HF DESIGNS FOR THE RADIO AMATEUR
: John D. Heys G3BDQ
: Published by RSGB, 1991

: an antenna called "The Terminated Tilted Folded Dipole" (T2FD) is
: described. It is a non-resonant, vertically polarized antenna with a
: useful frequency ratio about 4:1.

:
: 300 ohm
: -----/\/\/\/\-----
: | B C |
: | 1' 5" |
: |-----|
: A||D
: ||
: ||
: 300 ohm twin lead

You can always get better bandwidth by including lossy resistance, but
you have the disadvantage that you are throwing power away. You would
get about the same effect by using a resonant antenna and an attenuator.
Better to buy an antenna tuner and tune a non-resonant, lossless
antenna to the band in use.

AL N1AL

Date: (null)

From: (null)

I tried this antenna a number of years ago. Dimensions were identical
except for the 300 ohm terminating resistor. The article I had seen
said to use 390 ohms for use with 300-ohm feed. I used a 6:1 balun
from Palomar Engineers to bring it all down to 50 ohms.

It had a really low SWR on 15 meters only. Around 1.3 to 1 across the band. Terrible SWR everywhere else. So, I compared it to a half-wave dipole on 40 meters at the same height. The dipole was typically about 2 S-units better than the T2FD. I also compared it on 20-15-10 meters to a TA-33 at the same height. The 3-element tribander was typically about 6 S-units better than the T2FD.

I took down the T2FD and threw it in the garbage.

73,
Bob K2PH

--

Bob Schreibmaier K2PH | UUCP: ...!att!mtdcr!bob
AT&T Bell Laboratories | Internet: bob@mtdcr.att.com
Middletown, N.J. 07748 | ICBM: 40o21'N, 74o8'W

End of Ham-Ant Digest V93 #140

Date: 13 Dec 93 13:22:08 GMT
From: news-mail-gateway@ucsd.edu
Subject: NON-DELIVERY of: Ham-Ant Digest V93 #140
To: ham-ant@ucsd.edu

Delivery Failure Report

Your document:
Ham-Ant Digest V93 #140
could not be delivered to:
Rob Ontiveros
because:
Delivery time expired
Routing path:
CCGATE,CCGATE,CCGATE

Today's Topics:

Mag North Vs True North (2 msgs)
PI vs T Transmatch Circuits
short sw antennae?
T2FD antenna: any experiences? (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sat, 11 Dec 1993 16:04:30 GMT

From:

library.ucla.edu!europa.eng.gtefsd.com!emory!kd4nc!ke4zv!gary@network.ucsd.
edu

Subject: Mag North Vs True North

To: ham-ant@ucsd.edu

In article <gregCHrqwz.1A3@netcom.com> greg@netcom.com (Greg Bullough) writes:
>

>And of course the related, but equally puzzling question; if everyone
>comes home at night and turns on their television at prime-time, does
>the signal get weaker in fringe areas because of the number of receivers
>which are now consuming more microvolts of signal close in?

Well I can tell you what our transmitter engineer says. He says that
the antenna current soars when our local news comes on because everyone
out there is changing the channel to another station. Our SM overheard
him telling the MC operator "She's gonna blow! The current's backing up
and I can't handle it. You've gotta put on better programming." And the
SM thought he was serious. He called the CE at home and asked him what
we could do about the problem. You don't want to know what the CE said
to the transmitter engineer. :-)

Gary

--

Gary Coffman KE4ZV	I kill you,	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	You kill me,	uunet!rsiatl!ke4zv!gary
534 Shannon Way	We're the Manson Family	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-sorry Barney	

Date: Thu, 9 Dec 1993 20:29:00 GMT
From:
pravda.sdsc.edu!usc!howland.reston.ans.net!agate!headwall.Stanford.EDU!Csl
!paulf@network.ucsd.edu
Subject: Mag North Vs True North
To: ham-ant@ucsd.edu

greg@netcom.com (Greg Bullough) writes:

>And of course the related, but equally puzzling question; if everyone
>comes home at night and turns on their television at prime-time, does
>the signal get weaker in fringe areas because of the number of receivers
>which are now consuming more microvolts of signal close in?

My, what a helpful and informative posting. Yeah, right.

To answer the original question, no, the magnetic polar offset does not
"skew" signals; your aim should be based on true north. Now, there are
some negative effects on paths which cross the polar region, owing to the
concentration of flux lines; in particular, geomagnetic storms have a nasty
effect on polar paths.

--
-=Paul Flaherty, N9FZX | "Fighter pilots make movies. Bomber pilots make
->paulf@Stanford.EDU | history." -- Jake Grafton

Date: Fri, 10 Dec 1993 05:31:40 GMT
From: sytex!jim@uunet.uu.net
Subject: PI vs T Transmatch Circuits
To: ham-ant@ucsd.edu

Does anyone have any insight into building a switch into a
transmatch so that it is switchable from PI to T?

A friend of mine has a SWAN ST-1 antenna tuner that I am
interested to buy. Only problem is that with my ridiculous
indoor antenna situation (see below), I can't get it to
load of 15 meters using the T circuit it comes built with.

Works fine on 15 if I rewire it to a PI, but then it won't
handle 80 meters.

I'm considering putting a switch on the box and using it to switch between a PI and T configuration. Do THEY do that? Do I mess things up running the extra wires around in the box to make it possible?

My antenna is an indoor 40/20 meter dual center fed dipole. (how it snakes around the wall is a lovely site for apartment dwellers to see). Loads great with the Little MFG \$59 buck job. Since the MFJ isn't mine, but's on loan, I need to think about a replacement. Hence drolling over the SWAN, but I'll have to severly mod it.

Opinions anyone?

Jim -- AD4JE

jim@sytex.com (Jim Arnold)

Access <=> Internet BBS, a public access internet site

Sytex Communications, Arlington VA, 1-703-528-4380

Date: Wed, 8 Dec 1993 15:34:46 GMT

From:

olivea!sgigate.sgi.com!sgiblab!swrinde!cs.utexas.edu!howland.reston.ans.net

!newsserver.jvnc.net!netnews.upenn.edu!netnews.noc.drexel.edu!dunx1.ocs.drexel.edu

u!dunx1!st92ba44@decwrl.dec.com

Subject: short sw antennae?

To: ham-ant@ucsd.edu

hello there.

(excuse any ignorance, please). I was wondering how I'd go about shortening my antanna electronically. I've noticed that most of the short

antonio gatta

st92ba44@dunx1.ocs.drexel.edu

Date: Thu, 9 Dec 1993 21:29:33 GMT

From: walter!att-out!cbnewsj!k2ph@uunet.uu.net

Subject: T2FD antenna: any experiences?

To: ham-ant@ucsd.edu

Date: Thu, 9 Dec 1993 21:32:19 GMT

From:

pravda.sdsc.edu!usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!csn!col.h
p.com!srngenprp!alanb@network.ucsd.edu

Subject: T2FD antenna: any experiences?

To: ham-ant@ucsd.edu

Roger Traylor (rlt@ssd.intel.com) wrote:

: In the book: PRACTICAL WIRE ANTENNAS
: EFFECTIVE HF DESIGNS FOR THE RADIO AMATEUR
: John D. Heys G3BDQ
: Published by RSGB, 1991

: an antenna called "The Terminated Tilted Folded Dipole" (T2FD) is
: described. It is a non-resonant, vertically polarized antenna with a
: useful frequency ratio about 4:1.

:
: 300 ohm
: -----/\/\/\/\-----
: | B C |
: | 1' 5" |
: |-----|
: A||D
: ||
: ||
: 300 ohm twin lead

You can always get better bandwidth by including lossy resistance, but
you have the disadvantage that you are throwing power away. You would
get about the same effect by using a resonant antenna and an attenuator.
Better to buy an antenna tuner and tune a non-resonant, lossless
antenna to the band in use.

AL N1AL

Date: (null)

From: (null)

I tried this antenna a number of years ago. Dimensions were identical
except for the 300 ohm terminating resistor. The article I had seen
said to use 390 ohms for use with 300-ohm feed. I used a 6:1 balun
from Palomar Engineers to bring it all down to 50 ohms.

It had a really low SWR on 15 meters only. Around 1.3 to 1 across the band. Terrible SWR everywhere else. So, I compared it to a half-wave dipole on 40 meters at the same height. The dipole was typically about 2 S-units better than the T2FD. I also compared it on 20-15-10 meters to a TA-33 at the same height. The 3-element tribander was typically about 6 S-units better than the T2FD.

I took down the T2FD and threw it in the garbage.

73,
Bob K2PH

--

Bob Schreiber K2PH | UUCP: ...!att!mtdcr!bob
AT&T Bell Laboratories | Internet: bob@mtdcr.att.com
Middletown, N.J. 07748 | ICBM: 40o21'N, 74o8'W

End of Ham-Ant Digest V93 #140

Date: Mon, 13 Dec 1993 20:10:54 GMT
From: era!era!mark@uunet.uu.net
Subject: Painted Twinlead?
To: ham-ant@ucsd.edu

In yet another attempt to stay on HF without piquing the interest of our neighborhood covenantal snoops, I've decided that my transmission line (black, and running right up the back of the house) should really be blue so it doesn't stand out.

Can anybody think of any side effects (in the RF spectrum, not visible light) if I were to paint my 450-ohm twinlead (the type that looks like squashed ladder line) with run-of-the-mill latex house paint?

TNX, 73 ES GUD DX

- Mark

.....
: Mark A. Feit, KR4FH : Internet: mark@era.com :
: Engineering Research Associates : USENET: ...!uunet!era!mark :
.....

"Rock journalism is people who can't write interviewing people who

can't talk for people who can't read." -- Frank Zappa, 1940-1993

Date: Thu, 9 Dec 1993 22:45:20 GMT
From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!agate!apple.com!
gallant.apple.com!dfrancis.apple.com!user@network.ucsd.edu
Subject: Planar log-periodic antenna design
To: ham-ant@ucsd.edu

I am interested in building a planar log-periodic antenna by etching a piece of PCB material. I've found references to this type of antenna in a couple of books, but the descriptions are not sufficient to make a pattern for the antenna accurately. Could anyone offer a reference or equations which I could use to produce a 2D plot of the outline (pattern)? Ultimately interested in sizing for 30 MHz to 1.2 GHz but any bandwidth/center freq. would be good for a start.

-df

End of Ham-Ant Digest V93 #142

